



Physical Education and Recess as a Platform for Classroom Learning

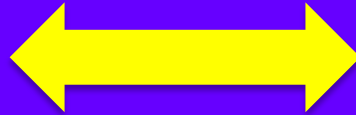
Dr. Debbie Rhea
Texas Christian University
TAHPERD President



**How does an equal educational
opportunity look in other
countries?**

Global Tensions

Excellence



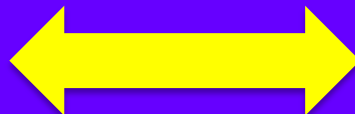
Equity

Academic



Play

I

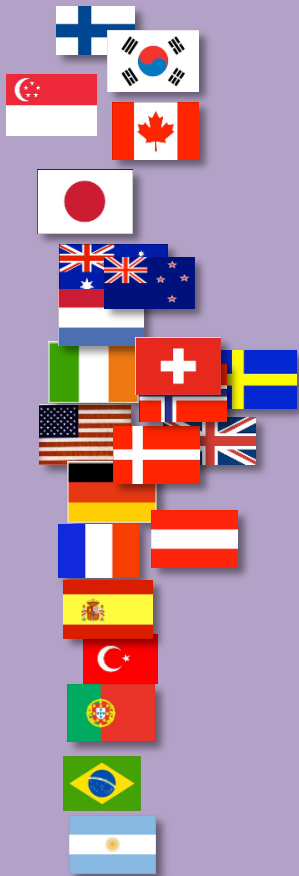


We

Students' performance in
reading, mathematics and
science (e.g. PISA)



Excellence



U.S./Finland Comparisons

U.S.

 Ranked 21, 24, 31 (reading, science, math)

 12 mandated standardized tests

 75.5% graduate

 \$11,301 per secondary school student

Finland

 Ranked 5, 6, 12 (reading, science, math)

 0 mandated standardized tests

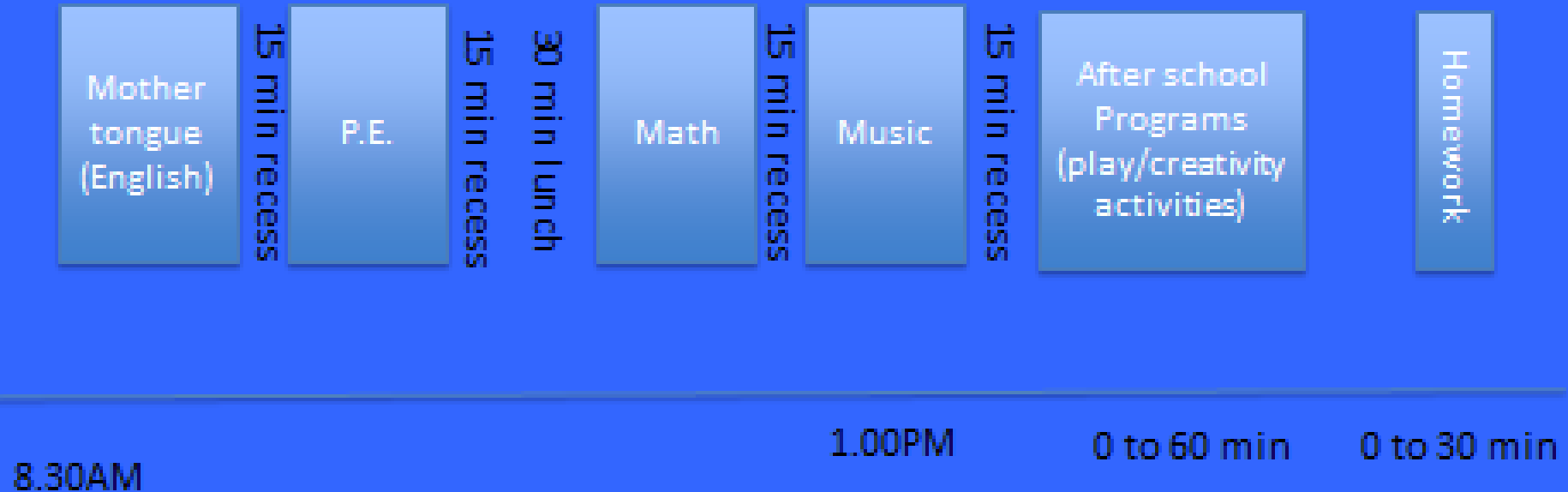
 93% graduate

 \$7,829 per secondary school student

Content Areas Emphasized

Content Area	Grade 1	Grade 2	Grades 3-6	Grades 7-9	Total
Math	3	3	15	11	32
Finnish	7	7	20	9	43
Physical Educ	3	3	8	6	19
Science	1.5	1.5	10		14
Biology, Physics, Chem				17	17
Foreign Lang1			9	7	16
Foreign Lang2				6	6
Health				3	3
Religion/Ethics	1.5	1.5	5	3	11
History	1	1	2	7	11
Art	1	1	6	2	10
Craft	1.5	1.5	7	2	12
Music	1	1	4	2	8
Total hours per week	20.5	20.5	21.5	25	

Typical 1st Grade School Day



No grading of pupils' learning

No standardized assessments

No external standards

From Finland to Fort Worth

Ethics = 20 min per day = 1 hr per week

Recess = 1 hr per day = 5 hrs per week



6 hrs per week of non-content

LET'S COMPARE...



Typical K-2 School Day
7 Hours Total



35 hrs per week
(No ethics/recess)



30 hrs content per week
6 hrs content per day



#21 **#31** **#24**
Reading Math Science



Typical K-2 School Day
4.5 Hours Total



22.5 hrs per week
(Includes 6 hrs ethics/recess)



15 hrs content per week
3 hrs content per day



#5 **#12** **#6**
Reading Math Science

Even if U.S. schools reassigned 6 hours of content time to recess/ethics, they would still have 2 more hours per day of content than their Finnish counterparts.

Benefits of Physical Education

- Children are wired to move & need to move throughout the day



As a result of P.E.:

- Structured learning environment
- Gross Motor Skills
- Fine Motor Skills
- Social/Emotional Development
- Cognitive Development

Benefits of Recess

- Children are wired to move & need to move throughout the day



- As a result of recess:
 - Unstructured outdoor play environment
 - Motor skill development
 - Improved creativity
 - Social skill development
 - Increased responsibility
 - Choice to do what the body needs to function optimally

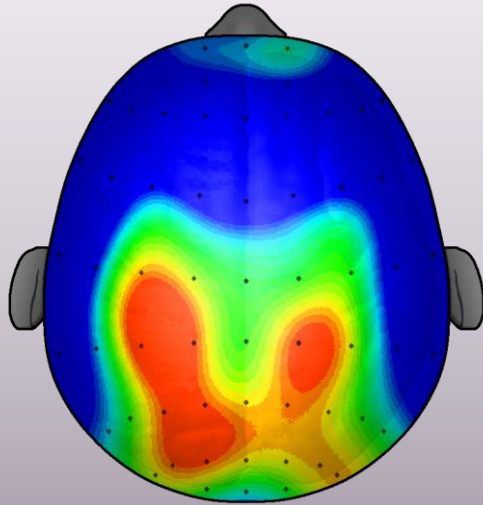


PLAY

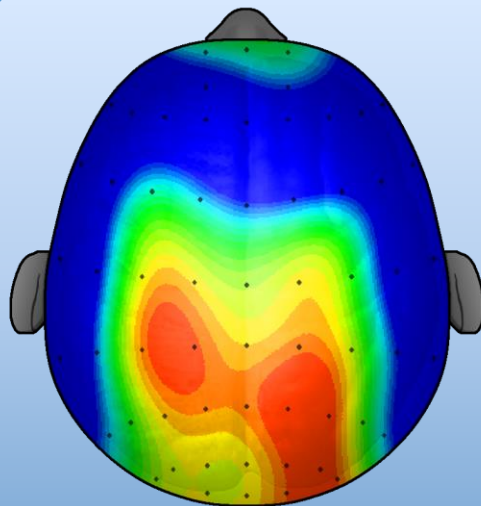
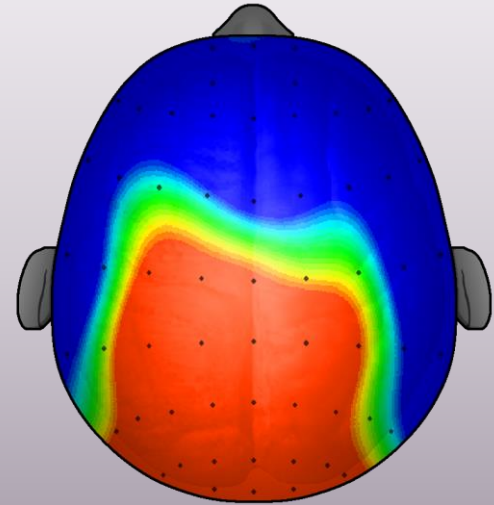
**UNSTRUCTURED
OUTSIDE**

Pre-test

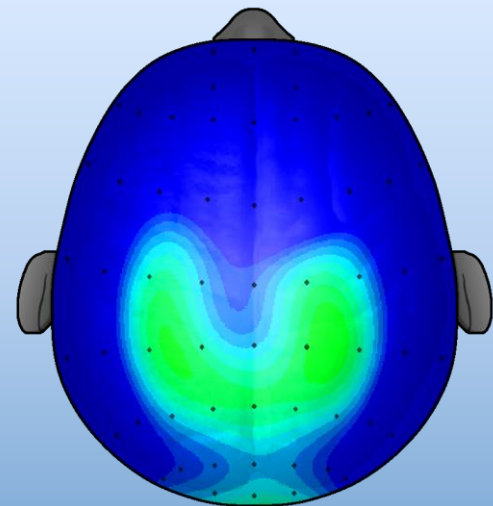
9 Months Later



FITKids
Intervention



Waitlist
Control





Get out of your chair. No, really.

According to the CDC, prolonged sitting is the #1 contributor to chronic diseases, with negative effects beginning after just one hour of sedentary behavior.

<http://home.utilifit.com/why-utilifit/>



Just one hour of sitting is as unhealthy as smoking two cigarettes.

All the latest research points to a single direction... **Sitting is the New Smoking.**

You can reduce your risk of many chronic diseases by getting active.
Just a minute or two of activity each hour is enough to reduce the threat of many diseases, including:

21% Breast Cancer

Breast cancer is the most common cancer in women, no matter race or ethnicity.

25% Colon Cancer

Colon cancer is the third most commonly diagnosed cancer and the second leading cancer killer in both men and women.

27% Stroke

The leading cause of death in the U.S., strokes kill nearly 130,000 Americans each year.

30% Type 2 Diabetes

Nearly 26 million people have diabetes in the U.S., 7 million of whom may be undiagnosed and unaware of their condition.

50% Hypertension

High blood pressure costs the U.S. over \$47 billion annually in direct medical expenses and over \$3 billion annually in lost productivity.

CHARACTER DEVELOPMENT














- & CULTURAL ENVIRONMENTAL INFLUENCES
- & SOCIAL SITUATION-CONTEXT INFLUENCES
- & INTRAPERSONAL INFLUENCES



Our mission is to bridge the gap between academics and social, emotional, and healthy well-being. The Liink Project aims to develop the whole child through increased recess and character development.

Four 15 minute recesses daily

Maintain physical education

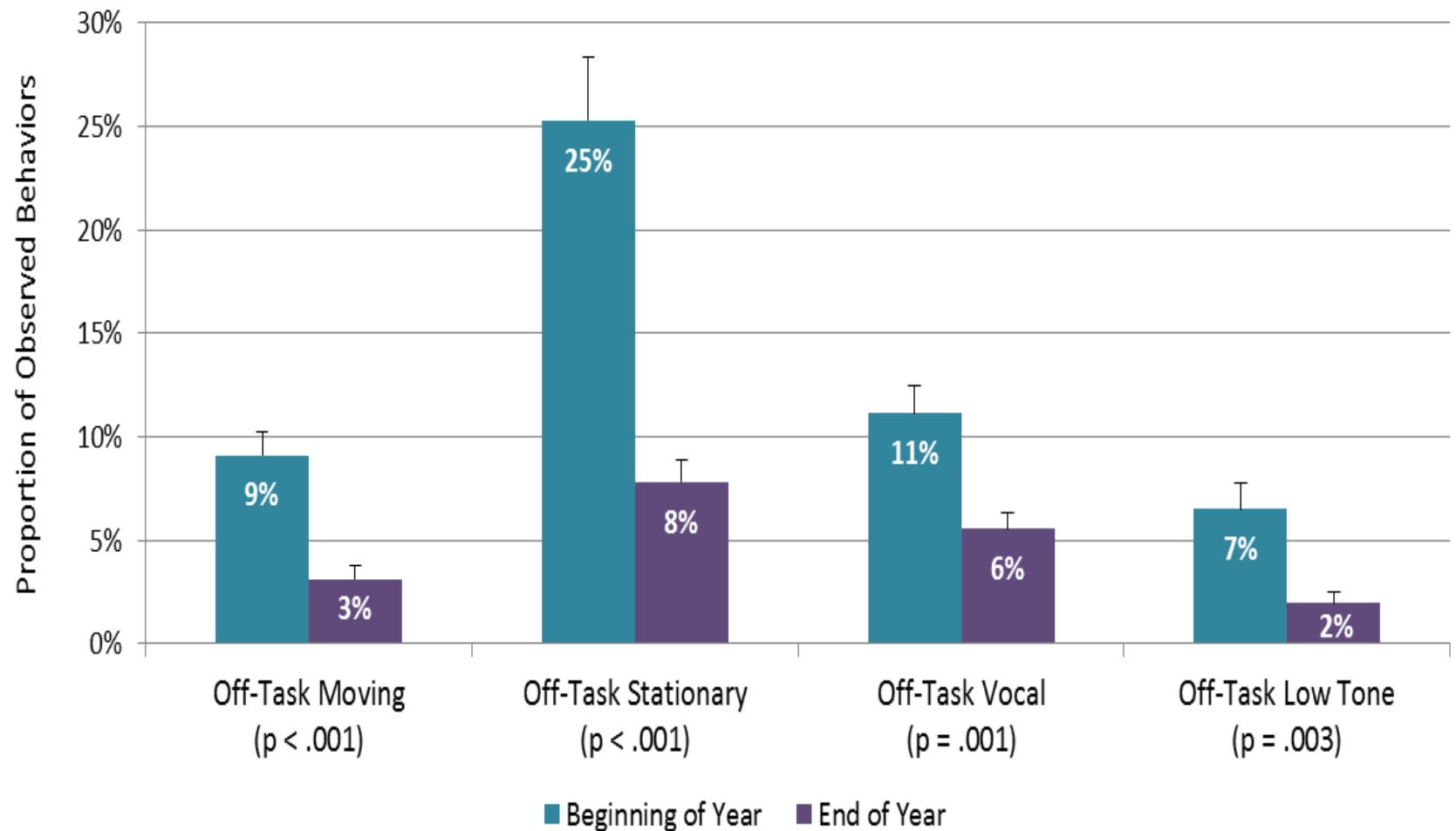
-  School starts 8:15
-  Announcements until 8:25
-  Content 8:25 ish – 9:05
-  **Recess 1: 9:05-9:20**
-  Content (9:20-10:20)
-  **Recess 2: 10:20-10:35**
-  Lunch (10:35-11:05)
-  Content (physical education & another co-curricular daily)
-  **Recess 3: 12:40-12:55**
-  Content
-  **Recess 4: 2:00-2:15**
-  Content
-  School out: 3:00



Three 15 minute lessons weekly

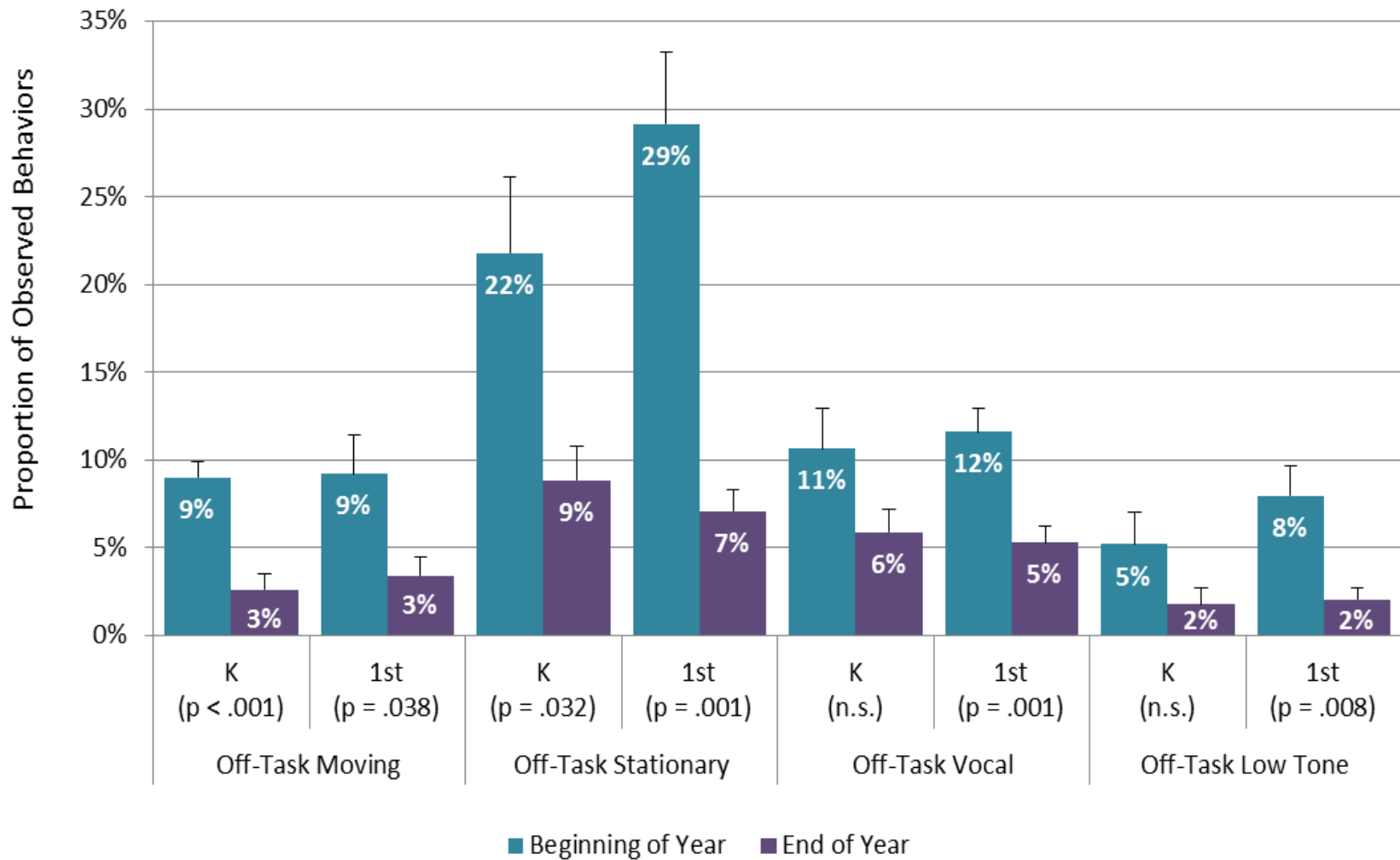
Liink Results

Classroom Observations



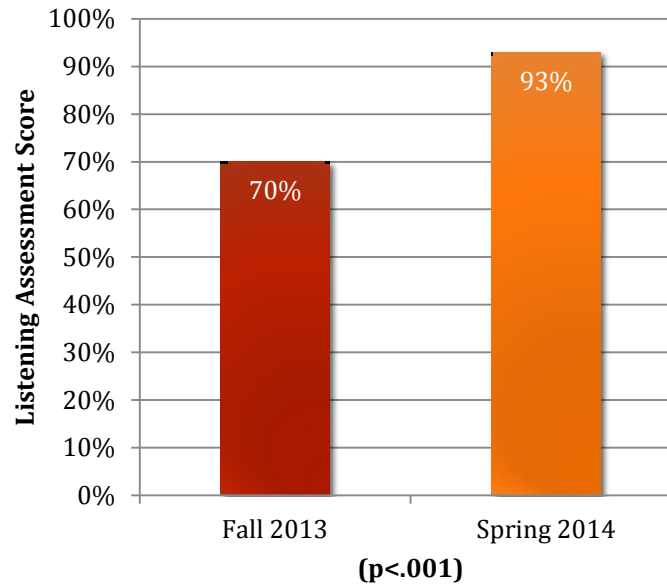
Note. Beginning of year N = 19; End of year N = 17.

Classroom Observations by Grade

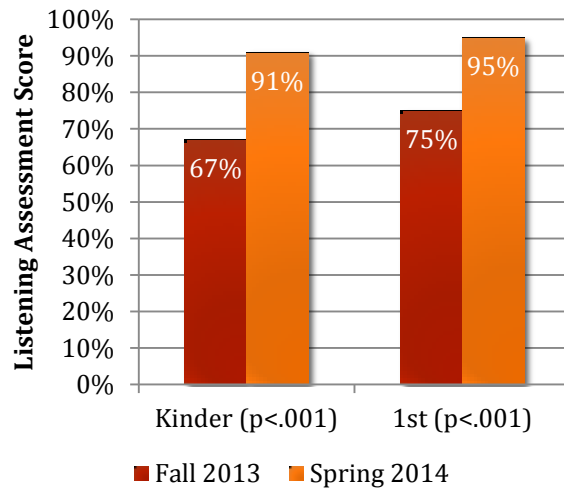


Note. Beginning of year K (N = 10), 1st (N = 9); End of year K (N = 7), 1st (N = 10).

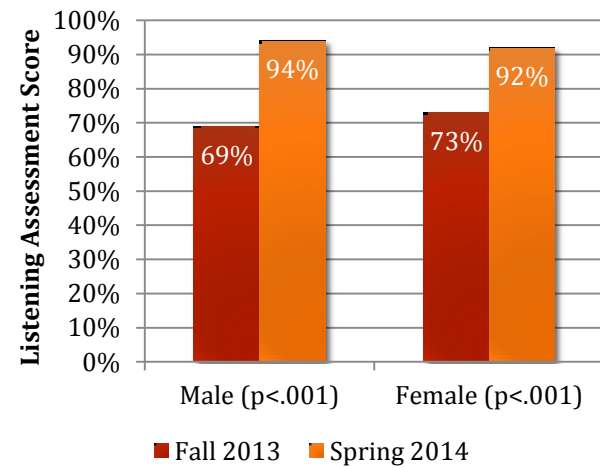
Total Listening Improvements



Listening Improvements by Grade



Listening Improvements by Gender



Recess Adherence

Recess Adherence










Better Decision Makers



Exploration of ability

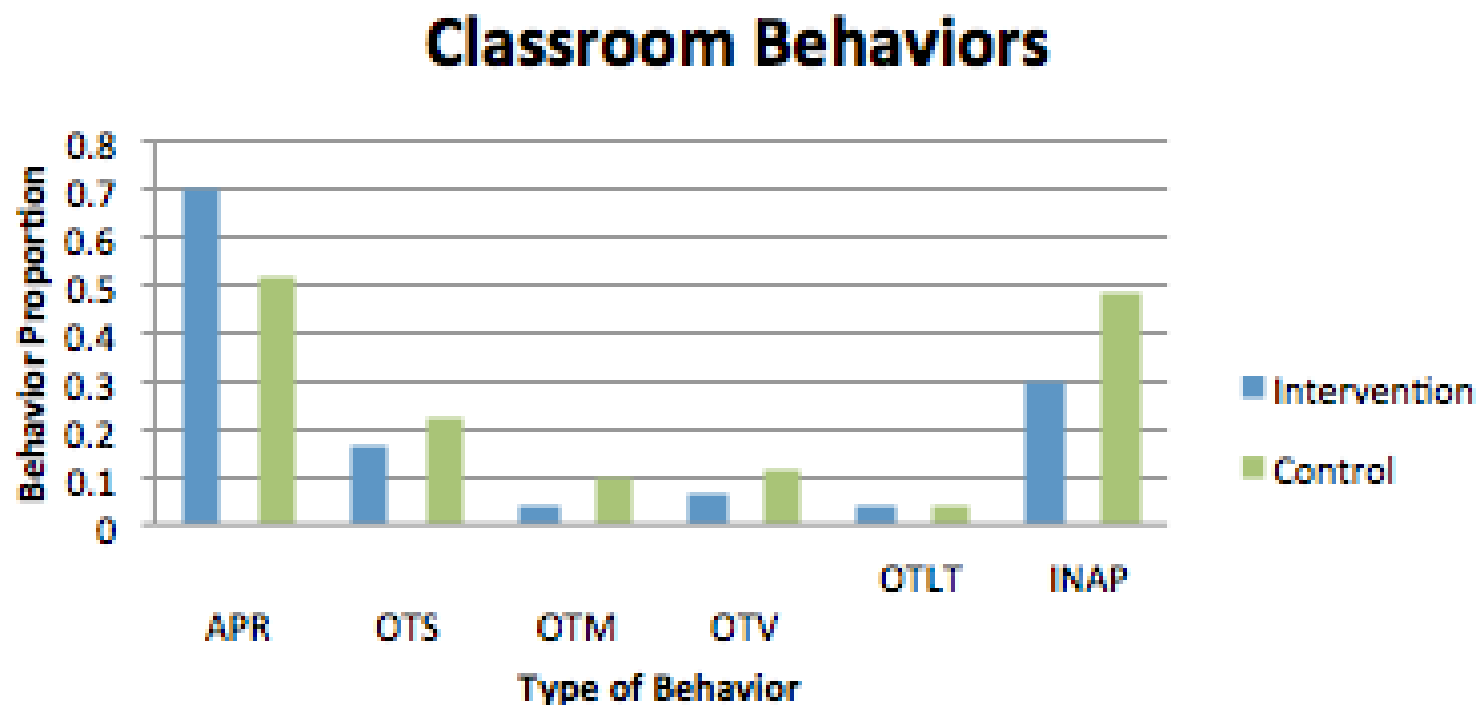


The Liink Project: Next Steps 2014-2016

-  Continue working with two private schools– added control schools
-  Two public school districts (Spring, 2015)
-  K & 1 Teacher & Administrator training for public schools - Spring, 2015
-  Teach 2-3 *Positive Action* lessons at the end of Spring, 2015 semester
-  Launch Liink Project grades K & 1 Fall, 2015 (four recesses daily, three 15-minute positive action lessons weekly)
-  Continue intervention, training, & feedback – Spring, 2016
-  Submit Institute of Education Sciences Grant – Fall, 2015

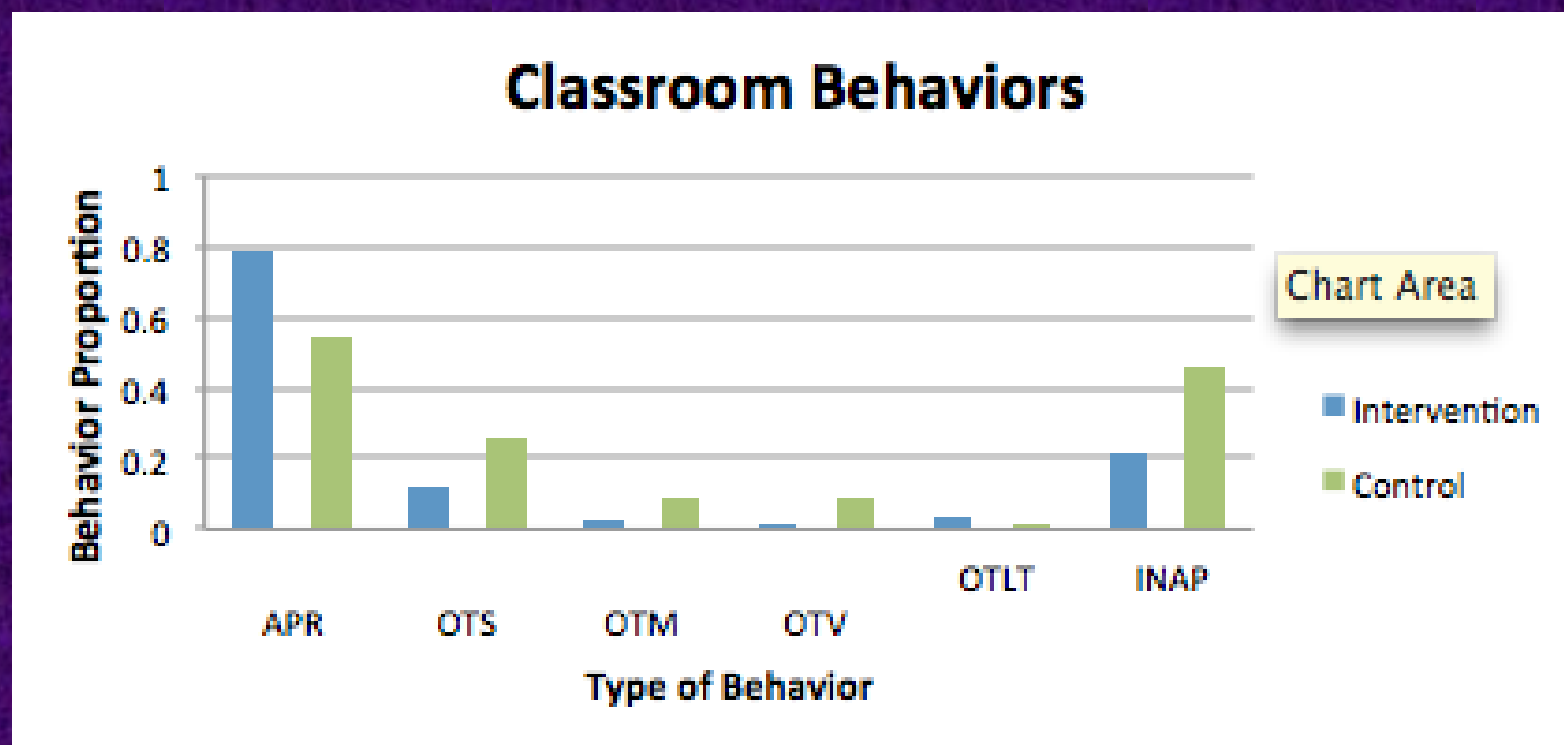
'14-'15 Preliminary Results

Setting A



'14-'15 Preliminary Results

Setting B



What Districts Can Do Presently

- Daily physical education – 45 minutes
- Health & well-being of children not just academic outcome
- Need structured and unstructured time daily
- Need unstructured outdoor time daily - recess
- Teachers need breaks too!
- Inservice trainings/workshops need 15 minute breaks every hour
- Breaks when STAAR testing



PLAY

is the highest form of

RESEARCH.

ALBERT EINSTEIN